



Business & Social Science
IJRBS**Research in Business & Social Science****IJRBS VOL 9 NO 7 SPECIAL ISSUE ISSN: 2147-4478**Available online at www.ssbfn.netJournal homepage: <https://www.ssbfn.net/ojs/index.php/ijrbs>**Perceived value of ride-hailing providers: The role of algorithmic management, customer dysfunctional behavior and perceived injustice** Rana S. Roshdy ^{(a)*},  Zhou Erhua ^(b)^{(a)*} School of Management, Huazhong University of Science and Technology, Wuhan, China; Assistant lecturer, Business Administration Department, Cairo University, Giza, Egypt^(b) School of Management, Huazhong University of Science and Technology, Wuhan, China**ARTICLE INFO****Article history:**

Received 14 November 2020

Received in rev. form 30 Nov. 2020

Accepted 2 December 2020

Keywords:

Labor process theory, service dominate logic, algorithmic management, customer dysfunctional behavior, customer empowerment and perceived justice

JEL Classification:

M42, D91

ABSTRACT

Despite providing service and consumption are two sides of the same coin of value co-creation in the gig economy, value as an outcome was only investigated from the customer point of view, not from the provider. This study aims to explore the impact of algorithmic management, customer dysfunctional behavior and perceived injustice on Uber and Careem drivers perceived value in Egypt. Qualitative interviews and content analysis were employed. Thematic analysis will be used for identifying, analyzing, and reporting patterns within data. Our findings define how drivers' perceived value is negatively influenced by algorithmic management, customer dysfunctional behavior, and perceived injustice. In order to increase drivers' perceived value, ride-hailing companies should not only put consideration on how to improve the control of algorithmic management and customer empowerment but also have to revise their policies and decisions to provide positive value to their drivers.

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Introduction

During the last decade, gig economy has become a universal and progressively important phenomenon (Bardhi & Eckhardt, 2012). It has risen a culture of “what’s mine is your” (Botsman & Rogers, 2010), which attracted so many consumers due to convenience and reduced cost comparing with traditional ownership model (Camilleri & Neuhofer, 2017; Puschmann & Alt, 2016). For labor market, this new form of capitalism attracted great number of workers to engage in several forms of flexible work (De Stefano, 2016; Lee et al., 2015; Wu et al., 2019). Where digital platforms replaced the fixed employer– employee relationship with new structure, in which platforms play as “shadow employer” by mediating the process of supply and demand between workers and customers (Friedman, 2014; Gandini, 2019; Veen et al., 2020). They promise to reveal a society where no matter what you need it is available in low costs, with more choices for users and flexibility for workers, and service providers and receivers live more spontaneously and liberated experience from bureaucracy and middle-men (Cheng & Foley, 2019; De Stefano, 2016; Flanagan, 2019).

Gig economy “collaboration consumption” is closely related to value co-creation (Ravenelle, 2017; Zhang et al., 2018). According to service dominant logic (SDL) principles, value generates from joint customer and provider accompanied processes, both of them play a vital role in creating value (Prahalad & Ramaswamy, 2004; Zwick et al., 2008). Peer-to-peer markets have two distinguishing features comparing to traditional marketplaces. First, service quality is varied due to the existence of different suppliers and the variance from one occasion to another. Second, transactions require close interaction between provider and customer where the later acts an active role in creating value (Camilleri & Neuhofer, 2017; Proserpio et al., 2018). Thus, digital platforms such as Uber and Careem tend to use algorithms to manage and control divers to maintain specific customer satisfaction rate (Lee et al., 2015; Reid-

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<https://doi.org/10.20525/ijrbs.v9i7.960>

Musson et al., 2020; Wood et al., 2018). Furthermore, various means such as feedback and rating provided by customers as well as ranking systems are used to have constant monitor over drivers' performance (De Stefano, 2016; Gandini, 2019).

Although labor process theory sustains great effort in explaining labor control in gig economy (Gandini, 2019; Wu et al., 2019), it still unclear how digital labor are affected by such means of control (Beverungen et al., 2015; Cheng & Foley, 2019; Lee et al., 2015; Veen et al., 2020). Moreover, there is a massive movement toward putting customers to work and using them as source of competence (Zwick et al., 2008). As customers act proactive role in value creation, owning unequal power would encourage some of them to adopt dysfunctional behavior to gain more desirable outcomes (Auh et al., 2019; Kang & Gong, 2019). Yet, the current understanding of customer participation is focusing on customer benefits and its outcome to firms (Auh et al., 2019; Chan et al., 2010; Dong & Sivakumar, 2017). Hence, there is a need to recognize the effect of customer participation on the perceived value of service providers (Mustak, 2019).

There are two dominant ride-hailing companies Uber and Careem in Egypt. By 2018, Uber acquire the first ranking of the Egyptian ride-hailing market, serving about 4 million passengers through 150000 drivers. Recently, by January 2020, 3.1 billion USD acquisition contract between Uber and Careem has occurred, under condition that both Uber and Careem are operating as separated companies. On one hand, Uber's General Manager in Egypt suggests that this acquisition is a very good step for the company in order to be able to totally control the market. On the other hand, drivers perceive this acquisition is only for Uber's favor. For instance, drivers' problems after this acquisition transformed from bad to worse. Drivers are surprised that the two apps became connected to each other. Thus, drivers whose accounts on Uber app were blocked for a certain reason, were shocked that their Careem accounts were also deactivated for no reason. Moreover, ride-hailing market in Egypt transformed from oligopoly to monopoly by Uber which gave it more power to change its policies without any fear from competition.

Thus, this research contributes to the existing literature in several ways. First, it extends the existing literature of value co-creation by applying service-dominate logic. Sharing economy platforms are increasingly utilizing algorithms to manage and coordinate extremely large amounts of data on both workers and customers (Yu et al., 2017); but how workers are being impacted by these relatively new algorithmic management practices remains unclear (Cheng & Foley, 2019). Value as an outcome of co-creation of gig economy was only investigated from the customer point view not from the provider's (Zhang et al., 2018). Second, to best of my knowledge, it is the first study to investigate the role of customer dysfunctional behavior on services provider's outcomes in gig economy issue by applying SDL. Applying this approach is vital, in particular in the ride sharing because its main activity is providing a service. Which characterized by high-contact and people-processing services. In this respect, it is vital to realize the role and the relative importance of the various key factors related to service in ride sharing. Third, it contributes to labor process theory by investigating the effect of algorithmic management and perceived justice on gaming and resisting behavior. Since there are concerns about the role of platforms in creating, and shaping, relations of co-creation (Gandini, 2019). Moreover, there is little doubt that algorithmic management is providing useful and effective tools for the operation of large sharing economy platforms (Cheng & Foley, 2019). Finally, this study will investigate the role of algorithmic management in new context. It will be applied in one of the developing countries (Egypt). It is noticed that most studies of gig economy have been conducted level in developed countries.

Literature review

Due to Marxist classic premises which are the main principles of the core theory of labor process (LPT), the process of creating value is totally dependent on labor shoulders. Moreover, effective labor control leads to extraction of surplus value (Beverungen et al., 2015; Wu et al., 2019). LPT plays a great role in assessing labor- capital relationship specially when it comes about control and exploitation (Jaros, 2005; Veen et al., 2020). It argues that managers have to keep control over workers because they may criticisms about the procedures, amount of required effort and meaning of tasks (Elliott & Long, 2016). Although LPT provides practical general outline for understanding of work in capitalist institutions (Thompson, 1990), activation of workers efforts in labor process still a main challenge (Veen et al., 2020).

Creation of new marketplace access mechanisms moving beyond traditional forms of access are carried out through relocation markets, social networks or peer-to-peer matching platforms (Uber, Airbnb) providing products, services and skills that need to be shared (Bardhi & Eckhardt, 2012). Gig work has created a lot of hype and has been presented as the next stage of capitalist development (Goods et al., 2019). There are many different terms that describe such type of work 'sharing economy', 'gig economy', 'crowdsourcing' or the 'collaborative economy' which makes defining it very challenging (Goods et al., 2019; Stewart & Stanford, 2017). The term 'gig economy' recognizes the establishment of a capital-labor relationship between a worker and a digital platform, that mediates workers' supply and consumer demand for the completion of a small task and operates at once as a market intermediary (Cheng & Foley, 2019; Friedman, 2014). Furthermore, it denotes the "collaborative consumption" made by the activities of sharing, exchanging, and rental of resources without owning goods (Puschmann & Alt, 2016).

By invoking new capitalist technologies that provide infrastructure for exchanging, interacting, communicating, and participating in the network (Ganapati & Reddick, 2018), the role of traditional control tools (e.g. Different human resource management control

strategies) became very limited (Jabagi et al., 2020; Wu et al., 2019), Which led to utilizing different regimes of control over labor process (Gandini, 2019). Additionally, employers are converting ways of control from direct to hybridity of control (Veen et al., 2020). Where capital preserve overall managerial prerogative by applying interlinking, complementary and merged ways of control (Callaghan & Thompson, 2001; Thompson & van den Broek, 2010). For example, hybridized control depends on software programs rely upon big data that monitor, evaluate work and stimulate worker cooperation (Elliott & Long, 2016; Thompson & van den Broek, 2010; Veen et al., 2020). It has resulted in a shift of managerial responsibilities from humans to forms of 'algorithmic management' (Cheng & Foley, 2019).

According to rising body of literature which discuss algorithmic management (Lee et al., 2015; Möhlmann & Zalmanson, 2018; Rosenblat & Stark, 2016), it is a self-learning systems , handles responsibility of managing virtual workers , execution of decisions and optimizing performance instead of human managers (Jabagi et al., 2020; Jarrahi & Sutherland, 2019; Schildt, 2017; Veen et al., 2020). Ride sharing algorithmic platforms are built on a continuous stream of information concerning about workers' behavior in any given situation, as well as automatic implementation of algorithmic decisions (Rosenblat & Stark, 2016) . Hence, work under control of algorithmic management has two main features. First, rating systems and acceptance rates that track driver performance, are ultimately used as tools to assess driver's performance (De Stefano, 2016; Gandini, 2019). Second, in algorithmic management processes, drivers interact with a system has less transparency, with few awareness about the set of rules governing the platform (Möhlmann & Zalmanson, 2018).

Nevertheless, algorithmic management allows ridesharing companies to control over the work processes effectively (Cheng & Foley, 2019). Algorithmic management has some attributes that may influence negatively over drivers (Jarrahi & Sutherland, 2019; Rosenblat & Stark, 2016). For example, high acceptance rate means for any service provider more gigs (Griesbach et al., 2019), Hence, low acceptance rate not only rides shortage but also accounts deactivation , which places huge pressure on drivers (Lee et al., 2015). Lack of transparency about set of explicit rules governing algorithm parameters not only influences drivers' economical outcome but also, affects their feeling and behaviors (Möhlmann & Zalmanson, 2018). For instance, algorithm matrix implements automatic decisions – such as penalty or account block - without investigating drivers or detailed explanation, that foster negative psychological emotions (Lee et al., 2015).

Some of these control practices necessitate little human involvement (Cheng & Foley, 2019; Reid-Musson et al., 2020). For instance, Uber manages its drivers through both algorithm and 'peer pressure' by transforming it into monitoring instrument over driver's performance (Gandini, 2019; Lee et al., 2015; Rosenblat & Stark, 2016). Gig platform moved labor processes outside factories walls and spread it into the entire society (Beverungen et al., 2015) . Furthermore, it fences of the intervened social relations and transformed them into production relations (Adler, 2007; Gandini, 2019). Also, government became the latest strategies in customer management (Zwick et al., 2008). These strategies aim at using consumers as partners (Cova et al., 2011). Whereby, shifting direct control to unobtrusive where customers–led practices play massive role in maintaining the growth of service economy (Fuller & Smith, 1991).

Additionally, the socialization of capitalist relations converted customers to 'collective worker' (Adler, 2007), where customers feedback used as monitoring, evaluating and discipline tool to service workers' performance (Fuller & Smith, 1991). For instance, Uber and Careem empowered their customers to perform as middle managers who use their rating as evaluating tool to determine drivers' employment eligibility (Rosenblat & Stark, 2016). However, the new forms of social relations production seems highly productive (Beverungen et al., 2015), passengers may misuse their power and think they have the authority to seek for excessive demands which might be burden over drivers (Kang & Gong, 2019; Reid-Musson et al., 2020). Thus, balance in using customers control is very critical to sustain generating surplus value from those productive social relations (Zwick et al., 2008).

Creating value needs balance in control process and components, this balance is the degree to which individuals are treated justly and whether the outcomes gained and the processes carried out are fair or not (Sulu et al., 2010). With increasing globalization and international competition, human resources became the most strategic asset for every organization. Thus, organizations are more concerned with employees' perceptions on justice because of its influence on employees' attitudes and behaviors (Thomas & Nagalingappa, 2012). Organizational justice literature discriminated between several sub-dimensions of justice as distributive justice which addresses the reward system, procedural justice which involves the organization's decision making procedures, interactional (interpersonal) justice show that people also react to their perceptions regarding the social sensitivity of interpersonal treatment received at workplace and informational justice which is provided information about work (Leow & Khong, 2009; Paré & Tremblay, 2007; Sulu et al., 2010).

Literature on perceived justice proposes that employees implement beneficial outcomes to their organization when it treats them fairly (Ibrahim & Perez, 2014). Moreover, employees who perceive higher levels of informational, procedural and interpersonal justice rpxperience high perceived value (Fischer, 2013; Georgalis et al., 2015; Tenhiälä et al., 2013). For instance, employess may feel insomnia, uncertainty and self-isolated when they lose control over factors and outcomes of decisions are made by their organizations (Lind & van den Boos, 2002). As, rewards distribution was not always as significant as the process of distribution

decision allocated (Cohen-Charash & Spector, 2001). Moreover, suffering from mistreatment and disrespect, lack of transparency, intimidation and absence of accessibility, led to symbolic value destruction (Greenberg, 2006). Thus, this study suggests that organizational injustice has negative effect on ride-hailing drivers' perceived value.

The impact of algorithmic management and customer's empowerment on human workers

To explore the impact of algorithmic management and customer's empowerment on human workers. With the purpose of solicit a suitable amount of informant, we used both interviews and content analysis. Since, drivers have little direct contact with company representatives, but can interact with each other freely through online forums to gain social knowledge of the rideshare systems which is a good opportunity to explore the impact of algorithmic management on human workers. Interviews provide good opportunity to improve our understanding about algorithm management and the customer empowerment as well as to have deep knowledge about perceived value dimensions. Besides interviews, content analysis was conducted on the largest Facebook Uber and Careem pages and groups in Egypt over the period February 2019 - September 2020. Seventeen interviews were conducted over the period July-December 2019 with drivers who use Uber and Careem. Drivers were recruited by: advertising in Facebook drivers' groups and through actual trips. Conducting interviews was very challenging since drivers were afraid that the interviewers were spied for ride-hailing companies to know who is against them, then fire him. Thus, interviewers avoided to ask direct questions about drivers' demographic information. Furthermore, the interview process was undertaken until it reached saturation (Creswell, 2016).

This study was carried out due to academic ethical protocol. First we conducted 4 unstructured interviews without following certain rules to capture as much as possible data about drivers' job and how working as a captain is valuable (Page et al., 2018). Then semi-structure interviews were designed based on analyzing the pilot interviews. Appendix 1 shows all detail about participants. This study depended on 'back and forth' between literature and fieldwork to understand the phenomena (Kaplan & Orlikowski, 2013). Thematic analysis was used to identify, analysis and report themes within data. It is built on six phases of analysis; first, it is getting ourselves familiarized with the data by writing verbal interviews and read all written ones more than once, second, creating initial list of codes, third, categorization different codes to search for potential themes, fourth, refinement of themes to ensure that data within each theme is coherent, fifth, defining the core of each theme and what is it about, and also formulate sub-themes, and finally, Writing the final report (Braun & Clarke, 2006).

Findings

According to Smith & Colgate (2007), there are four main categories of value: functional/ instrumental, experiential/hedonic, symbolic, and cost/ sacrifice value. Functional value is heedful to what extent is a service or product performing appropriately, having accurate functions and delivering expected outcomes (Woodruff, 1997). While, experiential/hedonic value is related to the degree of experience, emotions, or feelings that a service/product can create (Woodall, 2003). Moreover, symbolic value reflects the degree of psychological meaning attachment to a service/product. Whereas, cost/sacrifice value is linked to costs of value creation transactions (Smith & Colgate, 2007). This study will focus on functional, experiential/hedonic, and cost/sacrifice because interviewees did not mention anything related to symbolic value.

Functional value

Ride-hailing companies tend to hide customer pick up location which appear when driver accept the trip. Also, driver only knows the destination when he/she reaches pickup point. Drivers claim that hiding these information is not practical. For instance, some passenger may request rides for unsafe destinations.

P6 "someday I got a trip when I reached the pickup point, I discovered that the passenger destination is a place with bad reputation. So, I apologized to the customer then I canceled the trips."

Whereas, both companies use acceptance rate as a tool to evaluate drivers also to control supply follow. A driver would accept a trip that may harm him because he does not want to harm his acceptance rate to avoid penalization. As result, drivers think that acceptance rate is not an efficient way to evaluate captains. Moreover, this tool should be more flexible according to rides and situations because some trips are not safe as well as some pickup points and destination are with non-phased roads.

P9 "I have certain percentage of cancelation if I reached this percentage the company closes my account. I have to accept any orders to increase my acceptance rate. The company have to either give me the right to choose to go or not because sometimes I get trips to jam and unpaved areas which causes damages to the car nor increase the fare for such places"

P11 "I refuse a request if there are requests in places that are unsafe, and places that one may be afraid to enter because any problem may occur."

Although Uber and Careem are improving their algorithmic management continually, many drivers reported that they face technical problems with the application such as hanging in the system. Moreover, drivers reported that they got problems with GPS.

P4 “sometimes the app hangs.”

P6 “GPS is wrong and makes me enter wrong and closed roads, it is very old, is not constantly updated and here I speak about Uber’s map itself and not Google Map.”

Furthermore, they claimed that occasionally the system miscalculate their trips fee.

P16 “The company system calculates the trip price according to its interest, not according to specified pricing policy.”

Facebook post:” It’s not fair, how come a 22 km costs 13 EGP “

A: “the same with me, it counted 4.46 EGP for more than 10 KM trip”.

B: “It happened with me and the company didn’t give me anything”

Moreover, when drivers face problem unfortunately, they cannot find appropriate support because they are mostly referred to automatic systems.

P7 “If we send a complaint, the response is handled by someone who does not understand the importance of the situation and can’t tell the captain how to act properly. Sometimes the system sends pre-activated responses, for example: an automated answering system please go to the branch of the company.”

Facebook post” What shall I do the app is not working since couple days, and I called the company: they told me to send a message; I sent but I didn’t receive any replay”

A: don’t worry I happens with me every year for four days at the same time then it opens by itself”

Uber and Careem claim that the assignment process depends on customer get trips to the nearest driver but the reality is not totally clear how rides are allocated.

P8 “Sometimes, determine the destination itself forces me to cancel trips, it is not logical that I am in downtown and my destination is east “Madinaty” in Suez road then the program send me a request from a client wants to go to October 6 ate the west side from downtown.”

Many drivers complained from Uber automatic implementation of decisions due to unexplained penalties. However, drivers did not violate the company’s policies or needs, sometimes they get warnings, suspension or even block without any explanation.

P17 “The system issues random blocks to anyone without any reason and says fake trips- This does not happen- and the captain may have a trip and after he finish it, the system gave him a final block without a warning.”

Captains complained from using only divers’ rate as a way to evaluate his attitude and behavior since some customer misuse this tool for their favors.

P11 “Customer pretends that the captain talked with him in an improper manner, his car is not clean or he didn’t follow the GPS – however their GPS may lead me to longer routes would take more time to reach the customers- to get free rides from the company.”

Moreover, some passenger are illiterate about rating system, some of them would think that one star is the highest rate which harms the driver’s full rate.

Facebook post” I don’t know what I should do, a customer after the end of ride smiled to me and told me her is full rate then he pressed on one star and submit it, he thought that he is giving me the highest rate, should I call the company and explain what happened”

A: “don’t buzzer yourself the company will not listen to you”

B: “It happened once with me and the customer send email to change the rate but nothing happened”

Economic value

As, every driver has limited number of cancelation opportunities to unwanted trips, drivers with low acceptance rate have to accept trips that costs may surpass the net income from these trips. For instance, the distance the drivers take to reach customer is not counted, while some times the system may assign 10 km far away from the captain.

P3 “sometimes I get trips from fare places from me, so I would consume more unpaid gas”.

Also, some drivers claim that working for ride-hailing companies is not rewarding due to the growing company’s commission plus the cost of fuel and maintenance.

P16 “Unfortunately, the income is not good but I still working for Uber because of the economic conditions. The system mistake in calculating the journey fee and the expensive cost of licensing besides maintenance costs, and the difficulties we met in the street. In addition to weak bonus it became 50 pounds for every 20 trips, which means 2.5 for a trip, as well as what we can even achieve it.”

FG post: “is it normal that all the money I gain today from rides is totally spent on fuel?”

A: this job does not worth any more.

B: if your car depends on natural gas you will not lose.

Furthermore, both Uber and Careem changed the counting policy from determining the trip cost based on actual time and distance taken during the trips to a fixed predetermined fee before the starting the trip, which may eventually lead to economic losses to the captain.

P14 “When a customer requests a trip, the system determines the price based on a specific path. But during the trip, the customer may find that this road is crowded and decides to take another path - it may be longer than the path specified on the price in advance - and as a result of that the driver is the one who bears the cost of the additional distance and not the customer.

Moreover, Uber and Careem had raised its percentage aligning with the fuel cost increase which affected the driver’s income gravely.

P10 “the first year and a half of the income was very good and I was able to do anything, after all this date. The percentage is very high and anything is needed for the car is expensive, if I worked 500 pounds a day, after excluding about 160 gasoline and 40 pounds expenses all day, I will go home with 300 pounds this is with excluding the second day’s gasoline.”

Furthermore, some customers misuse fixed predetermined fee policy to save money on drivers’ charge, which decreases drivers’ profits.

FG post: “the customer defined close destination on the application then he asked me to go further than this destination, the trips fee is calculated on the determined one, the customer refused to change his destination and told me he will make a report”

A: “unfortunately, the company gives customers more than their right and now they treated us as their servants”.

Experiential/Hedonic value

Drivers feel unsecured due to lack of information about their customers, especially after many criminal and theft cases conducted by customers.

P11 “I don’t know to whom I am going to until I reached the customer. As you know maybe the customer will be a murderer as what happen to our college “Hany”. So, we feel that we are threatened all the time while there is nothing in the App offer us security.”

P6 “am not happy or satisfied, especially after Hani Shaker accident, I always in anxiety and anticipation”

Drivers chose to work under unsafe and beneficial circumstances to fulfil their economic responsibility towards their families or to face unemployment.

P10 “I am not happy or satisfied, I am working for now, because there is nothing else to do”

Customers’ evaluation is a very critical tool in determine captain status. One complain may change a driver’s account from active to block without any investigation. Thus, drivers always feel anxiety and under never ending pressure.

P9 “the biggest problem we face is that the company takes the customer’s side more than captain high causes high mental pressure on us and makes us feel injustice.”

Moreover, customers may give driver low rate and the driver would not understand why her/she got this low rate. Driver just receives report for this rating, but does not know who give him/her low rate and in which trip, and therefore, he/she does not know the cause of problem.

P16 “The Company listens only to customers complains, it may block captain’s account without any justice and making investigation with him. Capitan support service is not fear at all. Customer is over anything.”

Due to working in isolation from the company and colleagues, the only interaction drivers get is with customers. On the other hand, Uber has a non-communication policy; drivers are not allowed to have any kind of unofficial interaction with customers.

P6 “I benefit from dealing with people, I interact with different social and scientific classes. But I do not try to engage in social networking and relations with passengers.”

Since customer is the one who is responsible for driver rate, drivers do have to learn how to deal with different types of people. Drivers may not have the right to start a talk with a customer but if the customer starts a talk, the driver has the right to choose to go on or to end this talk.

P9 “working as a captain added to more experience but human relation no. experience in acting with customers and roads, etc.”

Sometimes these interactions between drivers and customers are fruitfully ending and some is not but at the end it adds to adds to captains’ ability in dealing with others.

P13 “I interacted with people from different backgrounds, cultures, religious and countries, it made me know more people.”

Discussion

Due to SDL, value co-creation takes place between at least two actors who integrate resources (Vargo & Lusch, 2008). It indicates that customers are always co-creators of value (Vargo & Lusch, 2004). Value-in-use is considered a central concept for the SDL. It has a vital bias in all marketing exchange activities since all parties engage to gain value (Ulaga, 2003). It is noticed that SDL literature is concerned with creating values from customer perspective. Moreover, previous research did not investigate it from the point of view of (service provider) who applies specialized competences through coproduced with customers (co-creation) to intangible and tangible value. Simply, value in a marketing exchange is generally defined as the trade-off between the benefits “what is received” and the sacrifices “what is given” (Ulaga, 2003). Accordingly, ride- hailing service providers not only sacrifice by having stable employment relationship (Friedman, 2014; Scheiber, 2017), but also they should integrate their feelings and personalities into the work process to achieve customer satisfaction, and in turn they get flexible employment arrangements (Leidner, 1999; Wu et al., 2019).

The first attribute of algorithmic management that influence driver’s perceived value is lack of transparency about how algorithmic make assignment, generating undesirable feelings toward ride-hailing companies (Lee et al., 2015). This feature is allocated to constrain drivers’ ability to misbehavior (Veen et al., 2020), however drivers have found ways to game and resist the system (Möhlmann & Zalmanson, 2018). Furthermore, lack of transparency made working for Uber and Careem more risky since service provider has to pick up different unknown passengers (Reid-Musson et al., 2020). Both companies do not inform the captain about any trip details - pickup place and destination – before they accept it first. Even though promises of autonomy and flexibility are linked to gig economy, non-transparency of system makes drivers experience loss of freedom and consequently they feel that the company is treating them unfairly by not providing them relevant and full information (Möhlmann & Zalmanson, 2018; Reid-Musson et al., 2020; Wu et al., 2019).

Additionally, both companies offer every captain limited number of trips’ rejection, exceeding that number means harming the drivers’ acceptance rate. For instance, drivers are expected to accept at least 80% of ride requests; low acceptance rate can result in account deactivation (Lee et al., 2015; Page et al., 2018; Ravenelle, 2017). Whereas, algorithm forces drivers to accept most of passengers requests, acceptance do not always mean gaining beneficial profit (Möhlmann & Zalmanson, 2018). For example, a driver may receive trip that takes – not charged - 15 KM to reach the customer pickup point which leads to spending more expenses for this driver. In addition, platforms employers shifted the economic risk of fluctuation by changing drivers’ wages according to demand conditions (Friedman, 2014). Moreover, technique issues like app hanging, not updated GPS and miscalculating of rides fee is not only affecting drivers perceived functional value but also it may lead to customer dysfunctional behavior.

It is noticed that although there is a growing attention to labor control in capitalist digital platforms, there is limited attention applying labor process theory in gig economy (Gandini, 2019; Wu et al., 2019). Embedding forms of emotional labor at the core of working process as customer feedback and rating system regulates the interactional relationship between the two parties (Gandini, 2019). Drivers for ride- hailing companies perform as emotional labor who present placating manner to passengers ; regardless of passengers’ demeanor ; to get high rating (Rosenblat & Stark, 2016). According to emotional labor theory (Hochschild, 2012), customer participation could be used as an effective control tool (Millar, 2008; Wu et al., 2019). Rating system is a critical labor control regime that empowers customers to perform as middle managers over drivers (Rosenblat & Stark, 2016). Moreover, passenger’s rating has circular role on drivers’ employability (Gandini, 2019; Rosenblat et al., 2017). Driver who has a rate less than 4.6 experience continuous feeling of fear to be fired through deactivating his/her own account. Thus, the rating ratio is a serious matter for drivers.

Customer rating system is a double-edged sword. On one hand, it is an effective tool to maintain high quality and creating economic beneficial. On the other hand, ensuring that customer understand their role in the service and do not misuse their freedom is very challenging. Unfortunately, some customers are not generally aware of rating system (Rosenblat et al., 2017). For instance, some customer presume that one star is the highest rank while five stars is the lowest one. Also, drivers may receive low rate due to different stuffs out of their control, including customer misplacing of their pickup location on GPS, fluctuation in trips pricing and holding time until driver reach pickup point. Getting low rate due to one of the former reasons not only impact on drivers’ employability but

also on their perceived value. For example, when drivers receive a low rate for something out of their control, this would make them have negative psychological feelings which affects their perceived hedonic value (Lee et al., 2015). Moreover, drivers would see that customer rating is not effective tool for evaluating their performance during trips.

According to Echeverri & Skålén (2011), creating positive value in practice is moderately unrealistic, since it is not guaranteed that both peers would cooperate to create value, one party or both would obtain dysfunctional behavior deliberately or involuntarily, which leads to “value co-destruction” (Camilleri & Neuhofer, 2017). Simultaneously, drivers are working hard to develop their reputation on the platform through rating system (Rosenblat et al., 2017), some customers intentionally violate the commonly accepted norms of treating drivers or use their rating as a compromising tool to gain extra desired outcomes (Kang & Gong, 2019). For instance, some customers dishonestly report service failures to get discounts or even free ride as service recovery. As a result, driver is penalized and his/her chances to get high paid rides are declined. Additionally, drivers feel that passengers are taking advantage of them which drives them to feel anger, depressed and disappointed.

Some passengers forget that rating system is a tool to get feedback for improving the service. They misuse their power and mistreat drivers such as take to them in aggressive way, rude, or abuse them verbally (Chan et al., 2010; Kang & Gong, 2019; Wang et al., 2011), diminishing drivers’ self-esteem and increasing their job stress. Moreover, they feel that this tool of control gave customers to humiliate them as well as they agreed that both companies are continuously take the customers side over their dignity. Dormann & Zapf, (2004) argue that service providers get insulted by their customers, experience negative emotions towards their job and themselves. Moreover, workers under control of algorithmic management suffer from social isolation (Wood et al., 2019). Although, ride hailing drivers are emotional labor who works with people, they have direct orders from their companies that they have to keep during the trips. Furthermore, drives are not supposed to have any kind of social relationships with their passenger, as some passengers misunderstand them and make a report, that why some drivers prefer to keep silence even the customer was friendly.

Finally, injustice is the keyword for value co-destruction. Injustice refers to an employee’s belief that he or she has been treated unfairly (Ambrose et al., 2002). When employees experienced an injustice related to the distribution of resources, firstly they examine whether this allocation decision is fair or not. If this process is unfair, they may show negative reactions. As a result, distributive injustice is not the most effective form of injustice causing powerlessness, and isolation feelings. Due to Bilal et al. (2017) employees in public sector organizations who are suffering from injustice greatly on the basis of gender, nepotism, race, favoritism, excessive influenced from government and union, which causes stress, anxiety, uncertainty and disgrace feelings. All these ultimately affect employees as well as organizational performance. The regulation of the acceptance rate and the driver-passenger rating system offered many benefits to overall service functioning. However, these numeric systems that made drivers accountable for all interactions were sometimes seen as unfair and ineffective and created negative psychological feelings in drivers (Lee et al., 2015).

In other cases, drivers perceive that ride-hailing companies favor the passenger in settlements, and also report that platforms’ policies are made for the benefit of both companies and customers. For example, driver’s rate plays a great role in determining employability status for captains, however low customer rate would never lead to deactivate his/her own account. Moreover, drivers assume that passengers keep misusing their role in value creation because they do not receive any penalizations for any committed violation. Thus, organizational injustice links between customers’ dysfunctional behaviors and value co-destruction. Also, it creates negative feeling towards platforms, passengers and drivers themselves. Sulu et al. (2010) argue that organizational environment in which each employee is not equally cause to the feeling of social isolation. In addition, an employee whose concerns, views, needs, and opinions are not considered in a decision making process feels isolated. Additionally, it increases economical loses for platforms themselves. For instance, organizational injustice generates counterproductive behavior such as gaming and resisting that drivers to use them as a tool to gain more economical benefits.

Conclusions

Digital platform, holds the promise of a more responsive world to human needs. Ride-hailing companies mainly focus of creating competitive value for their customers by maintaining high degree of control over drivers. However, using algorithm management and customer empowerment seems effective, it has ugly side which impact negatively on service providers perceived justice and value. Working with a system that has so many technical issues, lack of transparency and using acceptance rate and drivers rating as evaluation tool, is not only very frustrating but also may lead to perceived organizational injustice, economic loses and hedonic value destruction. Moreover, drivers feel that ride-hailing companies are not justice and responsible for customers’ dysfunctional behavior because they give customers great control power in their hands would give the opportunity to so of them to misuse this power for their favor. Also, customers’ dysfunctional behavior plays great role in destruction of drivers’ perceived value. Hence, Ride-hailing companies should adopt strategies that balance between the desired control results and drivers’ needs and value to keep providing high quality service to their customers.

This study acknowledge some limitation, which may inspire researcher in the future. First, data was collected for this study from only Uber and Careem drivers in Egypt. Further research could investigate the influence of algorithmic control and customer

empowerment on service providers in different cultures and also on additional types of gig economy. Moreover, this study depended on qualitative research interviews and content analysis for in-depth understanding of the studied issue. Hence, quantitative research in the future is important to validate the influence of control regimes in gig economy on service provider's perceived value. Furthermore, value co-destruction in gig economy and how does it impact on service providers' behaviors should be investigated.

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Appendix A:

Interviewee number	Interview type	Sex	Age	Part/Full	Education	Marital Status	Ownership	App	length
P1	Face to face/ unstructured	Male	22	P	Bachelor degree	Single	Owner	Uber	6 Months
P2	Face to face/ unstructured	Male	25-30	F	Bachelor degree	---	Owner	Uber	--
P3	Face to face/ unstructured	Male	30-40	P	---	---	Owner	Careem	--
P4	face to face/ unstructured	Male	over 50	F	---	Married	Owner	Uber	--
P5	Telephone/ semi structure	Male	42	P	Bachelor degree	Married	Owner	Uber	--
P6	Online/ semi structure	Male	35	P	Bachelor degree	Married	Owner	Both	8 Months
P7	Online/ semi structure	Male	57	F	High school	Married	Owner	Both	--
P8	Online/ semi structure	Male	30	F	High school	Married	Owner	Uber	1year
P9	Online/ semi structure	Male	24	F	High school	Married	Rented	Both	--
P10	Online/ semi structure	Male	45	F	Bachelor degree	Married	Owner	Both	3 years
P11	Online/ semi structure	Male	44	F	High school	Married	Owner	Uber	10 months
P12	Online/ semi structure	Male	--	F	--	--	Rented	Uber	1 months
P13	Online/ semi structure	Male	24	P	Bachelor degree	Single	Owner	Uber	2 years
P14	Online/ semi structure	Male	32	P	Bachelor degree	Married	Owner	both	2 years
P15	Online/ semi structure	Female	44	P	Bachelor degree	Married	Owner	Uber	1 year and 2 months
P16	Online/ semi structure	Male	41	F	High school	Married	Owner	Uber	1 year and 6 months
P17	Online/ semi structure	Male	30	F	Bachelor degree	Single	Owner	Uber	2 year and 6 months